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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,174	10/30/2000	Tom Francke	1920-0111P	3570

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EXAMINER

ZIMMERMAN, GLENN

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,174

Applicant(s)

FRANCKE ET AL.

Examiner

Glenn Zimmerman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,11-25 and 28-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25,28-31 and 35-42 is/are allowed.
- 6) ☒ Claim(s) 1,4-9,11-24 and 32-34 is/are rejected.
- 7) ☒ Claim(s) 33 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on October 30, 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Amendment, filed on March 18, 2003, has been entered and acknowledged by the examiner.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the protective layer of claim 7 and 37 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --APPARATUS AND METHOD FOR RADIATION DETECTION WITH RADIATION BEAM IMPINGING ON PHOTOCATHODE LAYER AT A GRAZING INCIDENCE--.

The disclosure is objected to because of the following informalities: On page 19 line 15, the examiner suggests deleting "(Fig. 1 suggested for publication)".

Appropriate correction is required.

Claim Objections

Claims 33 and 35 are objected to because of the following informalities: In claim 33 line 4, the examiner suggests changing "0.05-50 mrad" to "0.05-500 mrad", as page 5 of the specification suggests. In claim 35 line 3, the examiner suggests changing "0.05-50 mrad" to "0.05-500 mrad", as page 5 of the specification suggests.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4-9, 11-24 and 32-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 lines 2, 8, 10 and 15, and claim 7 line 4, the terminology "adapted to" is used. The wording "adapted to" is not a positive limitation and does not constitute a limitation in any patentable sense.

In claim 1 lines 4 and 12, claim 11 line 2, and claim 23 line 2 the terminology "can be" is used. This wording is not a positive limitation and does not constitute a limitation in any patentable sense.

In claim 1 line 5 and 14, claim 11 line 3, and claim 23 line 3 the terminology "can" is used. This wording lacks positive recitation.

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "being adapted to release" in line 2 as "releasing".

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "adapted to avalanche amplify" in line 8 as "avalanche amplifying".

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "adapted to detect" in line 10 as "which detects".

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "is adapted to release" in line 15 as "releases".

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "can be entered" in line 4 as "enters".

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "can impinge" in line 5 as "impinges".

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "can be entered" in line 12 as "enters".

A 112 2nd paragraph rejection has been determined for claim 1, as written about above. However, a further evaluation of the claim will be done while interpreting "can impinge" in line 14 as "impinges".

A 112 2nd paragraph rejection has been determined for claim 7, as written about above. However, a further evaluation of the claim will be done while interpreting "is adapted to release" in line 3 as "releases".

A 112 2nd paragraph rejection has been determined for claim 11, as written about above. However, a further evaluation of the claim will be done while interpreting "can be entered" in line 2 as "enters".

A 112 2nd paragraph rejection has been determined for claim 11, as written about above. However, a further evaluation of the claim will be done while interpreting "can impinge" in line 3 as "impinges".

A 112 2nd paragraph rejection has been determined for claim 23, as written about above. However, a further evaluation of the claim will be done while interpreting "can be entered" in line 2 as "enters".

A 112 2nd paragraph rejection has been determined for claim 23, as written about above. However, a further evaluation of the claim will be done while interpreting "can impinge" in line 23 as "impinges".

Claims 4-9, 11-24 and 32-34 are rejected for depending from a rejected claim.

Allowable Subject Matter

Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 4-9, 11-24 and 32-34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 25, 28-31 and 35-42 are allowed.

Regarding claim 1, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests an apparatus for detection of radiation including the combination of all the limitations as set forth in claim 1, and specifically a radiation entrance arranged such that a beam of radiation enters into the apparatus through the radiation entrance and impinges on the photocathode layer at grazing incidence the radiation entrance is arranged so that the beam of radiation enters into the apparatus between the photocathode layer and the electron avalanche amplifier and impinges onto the first surface of the photocathode; and the

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photocathode layer releases photoelectrons from its first surface in response thereto could not be found elsewhere in prior art.

Regarding claims 4-9, 11-24 and 32-34, claims 4-9, 11-24 and 32-34 are allowed for the reasons given in claim 1, because of their dependency status on claim 1.

Regarding claim 25, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a method for detection of radiation in a detector apparatus including the combination of all the limitations as set forth in claim 25, and specifically introducing a beam of radiation into the detector apparatus through the radiation entrance such that the radiation beam impinges on a first surface of the photocathode layer at grazing incidence, wherein photoelectrons are release from the photocathode in response to the impinging radiation beam, the radiation beam is introduced into the apparatus between the photocathode layer and the electron avalanche amplifier could not be found elsewhere in prior art.

Regarding claims 28-31 and 35-42, claims 28-31 and 35-42 are allowed for the reasons given in claim 25, because of their dependency status on claim 25.

Response to Arguments

Applicant's arguments, see pages 10-13, filed in the amendment of March 18, 2003, with respect to claims 1 and 25 have been fully considered and are persuasive. The rejection of claims 1 and 25 has been withdrawn.

Applicant's arguments, see page 9, filed in the amendment of March 18, 2003, with respect to the specification have been fully considered and are persuasive. The objection of to specification has been withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (703) 308-8991. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is n/a.



Glenn Zimmerman
May 19, 2003



ASHOK PATEL
PRIMARY EXAMINER